

# Hitchcock's Machine Tool Blue Book

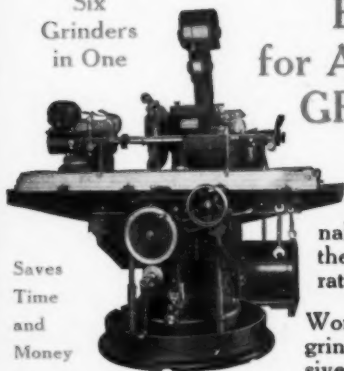
AUGUST, 1932

TWENTY-SEVENTH YEAR

## Thompson 12"x36" Universal

Six  
Grinders  
in One

Efficient  
for All Kinds of  
GRINDING



Saves  
Time  
and  
Money

Plain, edge, die, surface, cutter and reamer, and internal—and good at all of them. Efficient, accurate, dependable.

Work adjusts to a fixed grinding wheel, an exclusive feature that's better.

*All standard machines equipped with auxiliary independent coarse cross feed for surface grinding.*

**The Thompson Grinder Co.**  
1534 West Main St., Springfield, Ohio

PUBLISHED AT 508 So. DEARBORN ST. CHICAGO



## WHAT PRICE DRILLS?

When you purchase twist drills, do you "go shopping" or place your order on the "Cost-per-Hole" Test?

What do we mean by "Cost-per-Hole" Test? Simply that, no matter what you pay for drills, their value depends entirely upon the number of holes each drill can produce, and the cost per hole drilled.

As a result, more and more drill users, and buyers, are asking, not "How much?" but "What do your drills cost per hole?"

Cle-Forge High Speed Drills are offered you on the basis of their known, everyday performance. If you are interested in this modern, scientific way of buying, ask us to send you Performance Digests Nos. 56, 58, 59, 60, 61, 72, 82 and 83, together with complete instruction forms for making a comprehensive drill test in your own shop.



TRADE MARK  
REGISTERED

**The CLEVELAND** **TWIST DRILL**  
**COMPANY**  
**CLEVELAND**  
NEW YORK - CHICAGO - LONDON  
SAN FRANCISCO

TRADE MARK REG. U. S. PAT. OFF. AND FOREIGN COUNTRIES

# Hitchcock's Machine Tool Blue Book

**Selected  
Circulation**

**25,200  
Monthly**

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AUGUST, 1932

TWENTY-SEVENTH YEAR

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## How Many Calls?

How many calls are made these days by the salesmen of your company or of your dealers?

For every dollar you put into a full page advertisement in the "Blue Book", it makes 625 calls on responsible buyers of metal-working equipment, based on the annual rate.

Approximately 17,000 of its calls are on concerns rated from \$20,000 to \$1,000,000 and over.

While salesmen are neglecting many good customers, and while your competitors are relaxing their efforts, is a good time to keep in constant touch with the responsible metal-working plants of the country with a live message in the "Blue Book".

Right now lots of buyers are *planning* an improved shop equipment. Many of them actually are making up their *orders*, to be released when their purse-strings are loosened.

Right now, if ever, you should keep in constant touch with those buyers. And how can you do it more effectively and more economically than thru the pages of the "Blue Book"?

It's well worth trying, and it won't cost you a fortune.

*The publishers will be glad to discuss this matter with you.  
Your inquiry involves no obligation.*

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*Published By*

**Hitchcock Publishing Co.**

**508 S. Dearborn St.,**

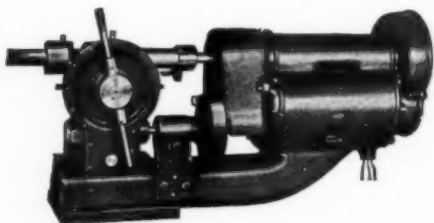
**Chicago, Ill.**

*Consult the Classified Finding Index for your requirements*

# DO YOU KNOW

about the most modern practice in selecting equipment for small hole drilling and tapping, when production requirements are high ?

## HERE'S THE ANSWER!



*Avey* MOTOR DRIVEN DRILLING UNITS are a standard product—built in various types and sizes—and they can be mounted to suit your work.

Our engineering department is at your service. Let us figure on your drilling problems, and show you the way to lower costs.

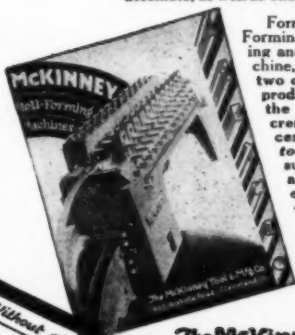
**THE AVEY DRILLING MACHINE CO.**  
CINCINNATI, OHIO

# Close -tolerances?



**E**VEN exacting assembly operations frequently find a cheaper and better solution in Roll-Forming.

The electrical conductor bar shown above, for example, used in loom work, involves the forming and assembly of two different sections with a fibre sheet of insulation only .012" thick between. Brake-formed, three operations were required to form and assemble, as well as one hand assembling operation.



Formed with a McKinney Roll-Forming Machine, the entire forming and assembly is done by machine, *in one operation*. Where two operators were required to produce this section before, the production is now increased four hundred per cent *with only one operator*. In addition, the pressure with which the sections are put together is regulated exactly, and the insulation definitely improved.

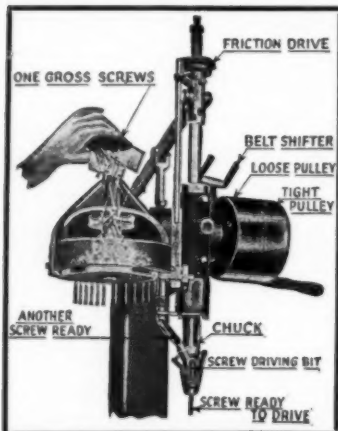
McKinney engineering service is available for your problems as well. Submit sketches or samples for estimate without obligation.

**The McKinney Tool & Mfg. Co.**

1684 Arabella Road,  
Cleveland, Ohio

*Without obligation, send Bulletin #31 to:*  
Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_

# Reducing Your Shop Costs



*Showing Magazine Feed of the Reynolds Automatic*

Don't  
Overlook  
Screw  
Driving  
and the  
Savings  
made  
possible  
by the  
**REYNOLDS**  
with the  
Time and  
Cost Cutting

## **AUTOMATIC MAGAZINE FEED**

CONDITIONS TODAY make the reduction of shop costs imperative—no one can afford to overlook this angle.

SCREW DRIVING—if you are not using REYNOLDS—is an item that is probably costing you several times what it should.

THE AUTOMATIC MAGAZINE FEED, built into a thoroughly practical and long-tried machine, enables the REYNOLDS to reduce screw driving costs 65 to 85% while turning out better, more uniform work.

ASK US TO PROVE THIS. Just drop us a line giving length and gauge of screws you use and dimensions over all of your work, and we'll gladly send facts and figures.

**The Reynolds Machine Company**  
Dept. H. H. Massillon, Ohio

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**"THE MODERN WAY TO DRIVE SCREWS"**

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**ELCO**  
Screws Make



**GOOD  
Products  
BETTER**



---

## Specializing in Serving the Manufacturing Consumer

And we have learned HOW to REALLY Serve.  
Standard sizes are shipped from stock in any desired  
quantity. May we receive your inquiries?

---



**-ELCO-  
SCREWS**  
REDUCE ASSEMBLY COSTS

**MACHINE SCREWS  
MACHINE SCREW NUTS  
WOOD SCREWS  
LAG SCREWS  
CAP SCREWS  
PIPE PLUGS**



*Write for Samples and Prices*

**ELCO TOOL & SCREW  
CORPORATION**

**1808 Broadway, ROCKFORD, ILLINOIS**

*"It Pays to Use Good Screws"*



# KRW "Bench Type" ARBOR PRESS



No. 37D

**\$28.50**

F.O.B. FACTORY  
ARCADE, N. Y.

Shipping Weight  
140 lbs.

*Write for special  
circular, just off  
the press, cover-  
ing KRW Hy-  
draulic Arbor  
Presses, air and  
oil operated.*

Every shop needs one of these presses to handle hundreds of jobs now done with vises and sledge hammers. They soon pay for themselves in time and labor saved.

The K R W "Bench Type" Arbor Press is oversize in every particular. The throat is extra deep, taking work up to 13 inches in diameter. The ram is  $1\frac{1}{2} \times 1\frac{1}{2} \times 17$  inches. Largest arbor is  $1\frac{1}{8}$  inches. The height is 22 inches. Can be conveniently mounted on end of work bench, as it takes up a space of only 8x20 inches.

**K. R. WILSON**

**10-16 Lock Street, Buffalo, N. Y., U. S. A.**

**EXPORT DEPT.**  
126 Liberty St., New York

**WEST COAST BRANCH**  
647 Mateo St., Los Angeles



**FOOTBURT**



## **A Single Spindle Footburt Sipp Sensitive Drill**

**Made in three  
sizes of single  
and multiple  
spindle models**

### **More holes with this machine**

**Why? Because you can change speeds in two seconds or belts in ten seconds—because the automatic idlers keep the belt pulling to capacity at all times—because the full ball bearing equipment and accurate machining gives a smooth, fast cut.**

*Write for No. 650 Folders*

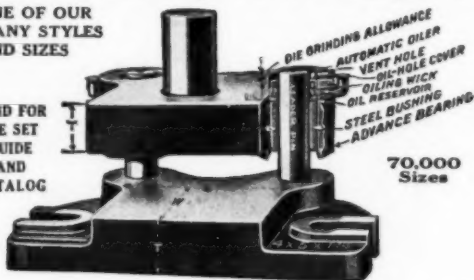
**The Foote-Burt Company, Cleveland, O.**

**FOOTBURT**

# Automatically Oiled Die Sets

ONE OF OUR  
MANY STYLES  
AND SIZES

SEND FOR  
DIE SET  
GUIDE  
AND  
CATALOG



**E. A. BAUMBACH MFG. CO.**

GENERAL OFFICE AND WORKS

1810 South Kilbourn Ave., CHICAGO, ILLINOIS

*Sales and Engineering Offices—Principal Cities U. S. A. and Canada*

## CHAMPION Tool Holders

**Save Expensive Tool Steel**

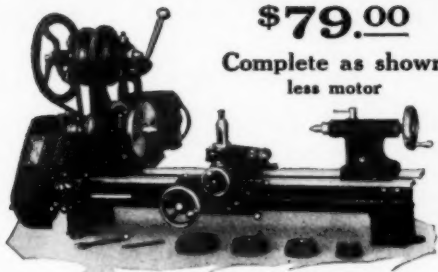


Made of drop-forged steel, thoroughly case-hardened. Absorbs heat from cutter, permits heavier cuts, lessens breakage.

The patented, protruding under-support, equipped with unbreakable "Mac-it" set-screw, increases the bearing for the cutter 40 to 70%, with a corresponding increase in cutter economy. Write for details.

*Our Catalog also describes Champion Expanding Mandrels, Vises, Clamps, Emery Wheel Dressers, Shop Furniture, Etc.—Send for it.*

**The Western Tool & Mfg. Co.**  
SPRINGFIELD, OHIO



**\$79.00**

Complete as shown  
less motor

9-inch Screw Cutting

## **BENCH LATHE**

*Motor Driven—Self-Contained  
18" Between Centers*

*Write for Circular*

**ATLAS PRESS CO., - Kalamazoo, Mich.**

## **Noiseless, Fast Riveting with a GRANT**



*Speed*—One rivet per second.

*Uniformity*—Each rivet is finished to the exact degree of tightness or looseness you require.

*Finish*—Heads perfectly formed, unmutated.

### **GRANT NOISELESS SPINNING RIVETER**

So well adapted to difficult work that no corner is too inaccessible for it to place a rivet. Yet it is so simple in operation that a boy or girl can handle it efficiently.

*Send samples of your work  
for riveting and cost estimate*

**The Grant Mfg. & Machine Co.  
C. E. Station, Bridgeport, Conn.**

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# Helpful Influences Are Accumulating

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10 No one can ring a gong when the bottom is reached, as the bottom for all things is not reached at the same time. However, the recent *improvement in commodity prices* is leading to the hope that the turn has come in some directions.

In the West, the *rise in hog and cattle prices* is fostering increased confidence, and holds promise of renewed purchasing power among the farmers this Fall.

With the *Home Loan Banks* will come a measure of relief for many home owners, while the wider use of the *trade acceptance* is aimed at the *stimulation of credit*, and benefiting the

Through the Glass-Steagall Bill the *powers of the Federal Reserve Board* have been broadened, and the committees of bankers and industrialists in the several Reserve districts are at work *bringing together worthy projects and dependable financing*.

The capital of the *Reconstruction Finance Corporation* has been raised to *four billion dollars*—the largest sum ever entrusted to a single government agency for peacetime allocation—and is a *strong influence for financial stability*.

At Lausanne, the *leading European nations*

individual merchant and business man.

have found a *larger common footing* than at any time since the War. In Ottawa, the family

at the *stimulation of credit*, and benefiting the individual merchant and business man.

*Adjournment of Congress* relieves business from further tax increases and agitation for the balance of the year, but leaves us with *adequate relief measures* for the coming Fall and Winter.

The *strengthening of bond prices* has added hundreds of millions of dollars to the reserves of financial institutions, and *bank and business failures* are reported sharply reduced from recent levels. This, and other favorable factors, are tending to bring *new issues of securities* into the market.

*The accumulation of these, and other helpful influences should result in an increased confidence.*

## The National Publishers' Association

*"As the most nearly self-contained nation, we have within our own boundaries the elemental factors for recovery."*

Published in the interests of a better understanding of the fundamental influences at work for national betterment

At Lausanne, the *leading European nations* have found a *larger common footing* than at any time since the War. In Ottawa, the family of British Commonwealths is meeting to consider its mutual problems in relation to World affairs. These deliberations may pave the way for a further and more effective meeting of the conference on reduced armaments.

Definite action on the *St. Lawrence-Seaway* project has added *confidence* to other hopeful conditions in the *mid-west*, while throughout the country there is a growing conviction that it is about time to make *needed replacements*, and to *buy or build* what may be needed or wanted in the next few months.

1905 **Strand** 1932

## FLEXIBLE SHAFT MACHINES

FOR MANY OPERATIONS

YOU CAN'T GO WRONG WITH THE STRAND

Type MP-5



THEY MAKE GOOD

MANY TYPES AND SIZES

$\frac{1}{8}$  to 2 H. P.

HORIZONTAL

OR

VERTICAL

SEND FOR CATALOG

Manufactured By

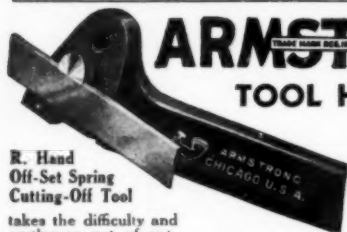
**N. A. STRAND & CO.**

Type ML-6



5001-5009 N. Lincoln St.,

Chicago, Ill.



**R. Hand  
Off-Set Spring  
Cutting-Off Tool**

takes the difficulty and costliness out of cutting-off operations for it has a resiliency that prevents work from climbing tool—the chief cause of tool breakage and other "grief." Recommended for lathes and automatic machines.

# ARMSTRONG

## TOOL HOLDERS

are the first things you will need for they are the backbone of the tool room — are used by over 96% of the tool rooms and machine shops. They

comprise a complete System of Tools, **permanent** tools for every operation on lathes, planers, slotters and shapers; tools that save All Forging, 70% Grinding and 90% High Speed Steel. They cut cutting-costs on all classes of work, both heavy and light.

Write for  
Catalog B-27

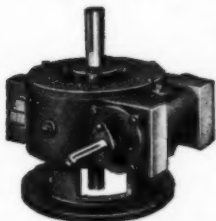


**ARMSTRONG BROS. TOOL CO.**

"The Tool Holder People"

310 N. Francisco Ave., CHICAGO, U.S.A.

STANDARDIZATION PAYS



## SPEED REDUCERS

ALL TYPES  
FOR LIGHT AND  
HEAVY DUTY IN  
STOCK FOR

TYPE V (TIMKEN EQUIPPED) **IMMEDIATE SHIPMENT**  
SEND FOR BOOKLET

BOSTON GEAR WORKS SALES CO.  
NORTH QUINCY, MASS.

BOSTON NEW YORK PHILADELPHIA CLEVELAND CHICAGO

# BOSTON GEARS

## Blower, Sprayer, Suction-cleaner *Instantly Convertible ~ No Installation*

This portable electric blower delivers DRY air, free from oil, at high velocity, yet low pressure. It safely, quickly, and efficiently cleans motors, generators, converters, shafting, overhead piping, etc. Reduces fire risk and danger of "shorts" and "burnouts."

Instantly convertible for suction-cleaning stocks, bins, auto interiors, furniture, overhead pipes, shafts, line shafting, etc., or for spraying insecticides, deodorants, paints, lacquers, etc.

Attach to any light socket. Less than 2¢ an hour to run. Ball bearings—no oiling. 4 models. Used by over 20,000 concerns. Fully guaranteed by 20 year old company, originators and largest manufacturers of portable electric blowers.

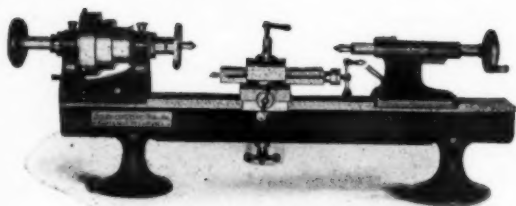
Try this blower 10 days. Then pay for it, or return it at our expense. Write or wire TODAY.

CLEMENTS MFG. CO., 62-C Clements Bldg.  
6650 So. Narragansett Ave., Chicago, Ill.

Ball-bearing  
**Clements**  
Cadillac

10  
days  
Free  
Trial





## Bench Lathe Engineers

The economy of these lathes is in the small investment, to perform work, within their size, to better advantage than on larger and more expensive machines. In fact, for some classes of work there is no substitute for the fine accuracy and convenient operation obtained on Wade Bench Lathes.

*Let us know your problems*

**THE WADE TOOL CO.,      Waltham, Mass.**



## The Blue Book

**Goes straight to the Heart of 96% of the  
Best Plants in every State of the U. S. A.**

The above statement is the result of careful mail inquiries directed to thousands of the larger tool-using concerns.

It is also mailed every month to the leading importers of American machinery and equipment in foreign countries.



# For Light and Heavy Etching

**With 24 Stages of Control.**

The LUMA Master Etchtool fulfills every marking requirement that can be done by an electric Etching outfit.

A Production Tool with as many as 24 different stages or varieties of control for regulating the depth of marking, this tool can be used for extra light marking of machinist scales, micrometers and fine tools or can be used for *extra heavy and deep* marking of rough and unfinished iron, cast iron, forgings, steel plates, etc.

*Send for circular giving complete data and details of this modern instrument.*



Built rugged for continuous work on the production line.

**LUMA ELECTRIC EQUIPMENT CO.**  
DEPT. H.—Main P. O. Box No. 132—TOLEDO, OHIO

# GRINDERS



## **PULLEY GRINDER**

Finishes Belt Surface, Crowned or Straight, from the Rough.

Also **TRUCK WHEELS**, Conveyor **ROLLS**, and Curved Work.

**THE GRAHAM MFG. CO.**  
70 Willard Ave., Providence, R. I.

*for roughing and finishing*  
**FLAT WORK**

Ring Wheels 12" and 18"  
Table travels 16" and 24"

**For Production to Tool Room**

*Send for Circulars*



**Work Bound to be True**

**Machine for Flat Work**

# UTILITY - WIARD Quick Change CHUCKS

(Improved)

For The  
Rapid Changing of  
Tools While The  
Spindle Is  
Turning



Quick  
Accurate  
Powerful  
Dependable

**The J. C. Glenzer Co.**

6467 Epworth Blvd.,

DETROIT, MICH.

## SPEED

### SPOT WELDERS

$\frac{1}{2}$  to 50 K. V. A.

Made foot-operated  
and variable speed  
AUTOMATIC MOTOR  
DRIVE, no change  
gears, for welding  
from .0005 to  $\frac{5}{8}$ "  
combined thickness.

Welders for Fine  
Work Priced As  
Low As

**\$55.00**

Submit Your Problems



MANUAL



AUTOMATIC

**EISLER ELECTRIC**

763 So. 13th Street,

NEWARK, N. J.

*Distributor and Dealer Connections Desired*

# MARKING DEVICES



THE SCHWERDTLE STAMP CO.  
BRIDGEPORT, CONN.

## "ALNOR" Pyrometers

for the  
Hardening  
Furnace

### MODEL 223

Inexpensive, yet accurate and durable, the ALNOR Pyrometer is used by large and small shops everywhere for heat-treating work. Because of its low first cost and compact size it is also very popular for soft metal melting, galvanizing, die casting, japanning, enameling, measuring flue gas temperatures and many other purposes.



**\$35**  
COMPLETE

*Write for descriptive folder*

**Illinois Testing Laboratories, Inc.**  
150 W. Austin Ave., Chicago, Ill.

# CULLMAN SPROCKETS

—For—

**Block, Roller and  
Silent Chains, over  
45,000 in Stock.**

*Send for our new  
160 page book.*



**CULLMAN WHEEL COMPANY**

**1359 Altgeld St.,**

**1-1**

**Chicago, Ill.**

*Speed Reducers—Flexible Couplings—Lathe Drives*

**No. 10 Ball Bearing Punch**



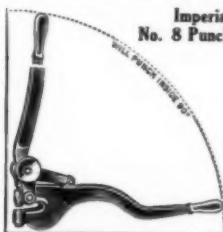
Weight  $8\frac{1}{2}$  lbs. Capacity  $\frac{1}{8}$  inch  
hole through  $\frac{1}{4}$ -inch iron.



**No. 24 Ball  
Bearing  
Punch**

Throat depth  
 $3\frac{1}{2}$  inches, capacity  
 $\frac{1}{2}$  inch hole  
through  $\frac{3}{8}$ -inch  
iron, weight  
45 lbs.

**Imperial  
No. 8 Punch**



Operating handles will not be-  
come disengaged, Roller Bear-  
ing. This style made in 3 sizes  
Nos. 7- $7\frac{1}{2}$ -8. Weight 16 lbs.;  
capacity  $\frac{1}{4}$ " through  $\frac{1}{4}$ " iron.

*Write for Catalog of Entire Line*

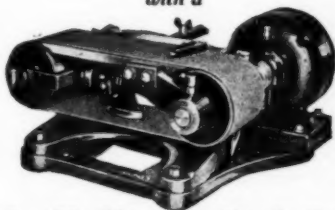
**WHITNEY METAL TOOL COMPANY**

**95 FORBES ST.,**

**ROCKFORD, ILL.**

## Abolish Expensive Hand Finishing

with a



### Simplex-M Abrasive Band Grinder

This Grinder accelerates production and cuts costs. Hand emerying or filing operations are antiquated in comparison. The use of this new modern machine assures straight grain finishes with sharp edges. *Details of this and other styles and sizes on request.*

**WALLS SALES CORP.,** 96 Warren Street  
NEW YORK

## Light—when and where wanted!

PATENTED  
Jan. 30, 1917



**Type 8**  
MODEL 1932

SO EASY when you use the handy "AUTEX" swivel jointed extension reel.

IT GOES wherever you want it—saves time and speeds up the work in Machine Shops, Service Stations and Industrial Plants of every size. Good light enables men to do good work.

Approved by the Underwriters

Equipped with Swivel Joint and Rubber Cord

Write for descriptive circular

**The Cincinnati Specialty Mfg. Co., Inc.**  
1903 Powers St., Cincinnati, Ohio



## SHELDON MACHINE VISES



### MILLING MACHINE VISES

Plain and Swivel

### DRILL PRESS VISES

Quality is built into  
our products



### SHELDON ARBOR PRESSES

*Write for illustrated price list*

**SHELDON MACHINE CO.** Railway Exchange Building,  
CHICAGO, ILLINOIS

## NEW LOWER RATES

### HOMELIKE ROOMS—GOOD FOOD

Rates in keeping with the times as low as \$1.50 per day per person—but the same high class service you've always enjoyed.

Convenient location—only 3 minutes from Peace Bridge to Canada, 20 miles from Niagara Falls.

*For reservations, booklet, and free official AAA road map, write*

Clarence A. Miner, President

**HOTEL LENOX**  
NORTH ST. NEAR DELAWARE  
**BUFFALO, N.Y.**

## Send Us Your Inquiries

---

We are always glad to forward a memo of any machinery or equipment for which you are in the market to all of our advertisers without charge.

### The Blank Form

printed on the other side of this page is for this purpose, and you are free to make use of it without obligation.

It has been the means of bringing many buyers and sellers together, to their mutual profit and satisfaction.

---

*Mail your needs to*

**HITCHCOCK PUBLISHING CO.**

508 S. Dearborn St., Chicago

## Memorandum Of Machinery or Equipment Wanted

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Name .....

Address .....

We are in market for .....

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Mail to Hitchcock Publishing Co., 508 S. Dearborn St., Chicago, Ill.,  
or to any advertiser



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# BURKE

## For Economical Milling

Light milling work cannot be handled by heavy equipment at a profit; the operating costs are too high. By equipping with the proper light millers, however, work of this type can be handled profitably and your heavy machines reserved for the important machining for which they are intended.



No. 3  
\$155.

The Burke Machine Tool Co., 297 E. 16th St.,  
Conneaut, Ohio

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## When You Move

Please drop us a line, giving both your *old* and *new* address. Or if the name of your company has been changed, please tell us the *old* name and the *new* one. That will enable us to keep our mailing list up to date, and will insure your receipt of this publication monthly.

If you wish this book addressed to any particular individual in your plant, we shall be glad to comply with your request. There is no charge. Thank you.

**Hitchcock Publishing Co.**  
508 So. Dearborn St., Chicago, Ill.

## In Spite of Precautions Taps Break in the Hole

*That's bad enough—but the real expense comes in stripping the threads when you remove the broken tap.*

### The Walton Tap Extractor

offers an effective, instantaneous way of overcoming this loss. Its steel fingers inserted in the broken tap remove it intact. An apprentice can operate it!

**Made in three and four-flute styles**

*Often pays for itself in the 60 day trial allowed*

**The Walton Company**  
302 Pearl St.,                      Hartford, Conn.

## "PRO-CUN-IER" TAPPING ATTACHMENTS

Style  
"E"  
High  
Speed  
Tapper



For only a few dollars, a "PROCUNIER" reversible tapping head converts your drill press into a sensitive tapping machine.

Our brand new cork clutch reversible friction tapper (illustrated), can be driven over 2000 R. P. M. on many jobs.

**1/4" Capacity \$35.00: 1/2" Capacity \$45.00**

We also have positive drive tools for slower work, at much lower prices.

Here's all the "Pro" steel dog clutch tappers cost complete with our new style tap holder:

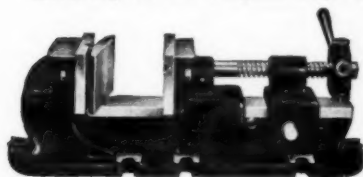
No. 1—1/4" Capacity; Safety \$28.00; Positive \$22.00  
No. 2—1/2" Capacity; Safety \$34.00; Positive \$28.00  
No. 3—3/4" Capacity; Safety \$40.00; Positive \$34.00  
No. 4—1" Capacity; Safety \$52.00; Positive \$46.00

*Want to try one on your tapping job?*

**Procunier Safety Chuck Co.**  
14 S. Clinton St.,                      Chicago, Ill.

# Gem Drill Press Vise

Holds tapered and irregular shaped pieces firmly



Made in  
three  
sizes  
up to  
10½ in.

ITS STRENGTH, capacity, adaptability and quickness of setting make it *the most efficient vise on the market*. Swivel jaw adjusts automatically to odd shaped pieces. Adapted to an unusual variety of drilling and milling operations. A big time saver. Worth more than it costs.

*Write for folder, illustrating some of its many uses.*

**J. E. Martin Tool & Die Works,** 528 W. State St.  
Springfield, O.



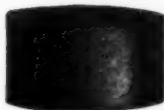
## T. H. L. Punches

**Insure Continuous and  
Profitable Production**

*Because* they are made of the right  
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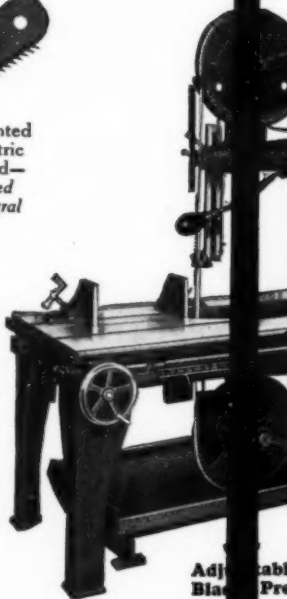
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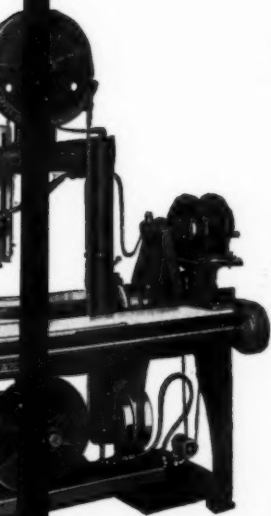
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Wilson, K. R., Buffalo, N. Y.

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Sundstrand Machine Tool Co., Rockford, Ill.

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Armstrong-Blum Mfg. Co., 341 N. Francisco Av., Chicago

## Bending Machines, Hand and Power

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Excelsior Tool & Mch. Co., E. St. Louis, Ill.  
Lewthwaite Mch. Co., T. H. 311 E. 47th., N. Y.

## Blowers, Electric

Clements Mfg. Co., 6650 Naragansett Ave., Chicago, Ill.

## Bolt and Nut Machinery

Foots-Burt Co., Cleveland, O.

## Boring, Drilling & Milling Machines

Defiance Machine Co., Defiance, O.

## Boring Machines, Horizontal

Avery Drilling Machine Co., Cincinnati

## Brakes, Hand Truck

Fisher Equip., 1281 Caxton Bldg., Chicago

## Brands, Burning

Schwerdtle Stamp Co., Bridgeport, Conn.

## Cap Screws, Hexagon Head

Elico Tool & Screw Corp., Rockford, Ill.

## Centering Machines

Sundstrand Machine Tool Co., Rockford, Ill.

## Centers, Frictionless Live

Precision Gauge & Tool Co., Detroit, Mich.

## Centers, Special

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Cullman Wheel Co., 1359 Altgeld St., Chgo.

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## Chucks, Collet

Procuter Safety Chuck Co., 14 S. Clinton St., Chicago

## Chucks, Drill and Tap

Procuter Safety Chuck Co., 14 S. Clinton St., Chicago

## Chucks, Quick Change

Glenzer Co., J. G., Detroit, Mich.  
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## Chucks, Ring Wheel Grinder

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Wade Tool Co., Waltham, Mass.

## Classified Finding Index

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### Die Threaders, Automatic

Townsend Mfg. Co., H. P., Hartford, Conn.

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Slawek Tool Co., Detroit, Mich.

### Drill Jigs

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### Drill Heads, Multiple

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### Drilling Attachments, High Speed

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Townsend Mfg. Co., H. P., Hartford, Conn.

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Avey Drilling Machine Co., Cincinnati

### Drilling Machines, Multiple Spindle

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## Classified Finding Index

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### Grinding Machines, Surface

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### Lathes, Precision

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### Milling Machines, Manufacturing

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Wilson, R. K., Buffalo, N. Y.

### Presses, Punch

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### Pulley Machinery

Avery Drilling Machine Co., Cincinnati

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Armstrong-Blum Mfg. Co., 341 N. Francisco Ave., Chicago

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Armstrong-Blum Mfg. Co., 341 N. Francisco Ave., Chicago  
Lawthwaite Mch. Co., T. H., 311 E. 47th, New York  
Whitney Metal Tool Co., Rockford, Ill.

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Lawthwaite Machine Co., T. H., 311 E. 47th St., New York  
Whitney Metal Tool Co., Rockford, Ill.

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Proconier Safety Chuck Co., 14 S. Clinton St., Chicago  
Whitney Metal Tool Co., Rockford, Ill.

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## Tool Holders

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Hill, Clarke & Co., 649 W. Washington Blvd., Chicago  
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United Machinery & Supply Co., St. Louis, Mo.  
Wertman Mch. Co., M. A., Cleveland, O.  
West Penn Machinery Co., Pittsburgh, Pa.  
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Wigglesworth Mch. Co., Cambridge, Mass.

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Armstrong Bros. Tool Co., 308 N. Francisco Av., Chicago  
Graham Manufacturing Co., Providence, R. I.  
Martin Tool & Die Works, J. E., Springfield, O.  
Plunket Mch. Co., J. E., 215 N. Ada, Chgo.  
Sheldon Machine Co., Railway Exchange Building, Chicago, Ill.

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 Air comp., 1050 cu. ft. Syn. m. d.  
 Air receiver, 48"x10' for 150 lb.  
 Auto. lathes, 14" Fay. belt and m.d.  
 Barel, 19"x24" tile lined. b. d.  
 Bender, hand, 3/16"x1" Wallace  
 Bender & straight'r, cap. 12" beams.  
 Blower, No. 40 Comersville.  
 Blowers, Root No. 3, 500 c. p. m.  
 Bolt cutters, 1 1/2" and 2" Acme l. s.  
 Bolt cutter, 1/2" Geometric, m. d.  
 Boring mill, 30" King; and Bullard.  
 Boring mill, 100" Pound, for m. d.  
 Boring mill, 14" Betts, 2 hds., m. d.  
 Brake, 6" D & K., 16 ga. hand.  
 Brake 10' Keene toggle, 16 gauge.  
 Brake, power, 8"x10 ga. Chicago.  
 Brakes, hd., 10' for 18 ga. Robinson.  
 Broaching mch. Nos. 1 & 3 La Pointe  
 Chuck, Heal magnetic 14"x40".  
 Chuck, Walker magnetic, 6" diam.  
 Cold header, 3/4" W-F, solid die.  
 Cold saws, Nos. 11 1/2 and 12 Higley.  
 Crimping roll, 6 1/2" Robinson, 16 ga.  
 Drill, elect. 3/4" U. S., 110 v. Univ.  
 Drills, 14" T. & F., 2 and 3 spindle.  
 Drills, multiple 10 and 20 spindle.  
 Drill, 24" Rockford, g. f. taper att.  
 Drift, 25" Snyder, s. h., b. g.  
 Drills, radial, 5' Western, g. b., m. d.  
 Drill, radial, 3 1/2' C-B, g. b. for m. d.  
 Drill, sensitive radial, 3' Amer. t. a.  
 Exhauster, with 1 1/2 h.p. motor, 1/60.  
 Folders, bench 30" hand (4).  
 Forging mchs., 1 1/2", 3" & 3 1/2" (steel).  
 Furnace, rotary annealing, 12"x8".  
 Furnaces, oil tempering, 10"x10"x10".  
 Gear hobbess, No. 1 Adams "Farw."  
 Gear hobber 12" S-S "TRO".  
 Gear and pinion cutter, No. 3 Sloan.  
 Grinder, No. 1 Landis universal.  
 Grinder, No. 1 LaSalle surface.  
 Grinder, 18-D. Rowbottom, o. h. b. b.  
 Grinder, No. 1 Norton tool & cutter.  
 Groover, 30" Niagara, hand.  
 Hack saw, 6x6" Marvel, motor drive.  
 Hack saw, Racine Jr. for m. d.  
 Hack saw, Peerless, 6" univ. shaping  
 Hammer, 50 lb. Kane & Roach, pwr.  
 Ham., 400 lb. No. 10 Beaud., pwr. b. d.  
 Hammer, 800 lb. Erie stm. forg., s. f.  
 Hammer, 1000 lb. Chbg., steam drop.  
 Hoists, chain, 1 to 8-tons capacity.  
 Keyseaters, No. 2 Baker.  
 Keyway cutter, 24" Morton, cap. 2 1/2".  
 Lathe, Sundstrand 7" Mfg. type.  
 Lathe, 14"x8" Hendey, m. d., t. a.  
 Lathe, 14"x6" L. & S. q. c. g., t. a.  
 Lathe, 16"x8" Monarch, q. c. g.  
 Lathe, 16"x8" Hendey, tiebar, quick  
 change gear, taper attach.  
 Lathe, 14"x8" W.-B., q. c. g.  
 Lathe, 18"x8" L. & S. sel. hd. s. p. d. t. a.  
 Lathe, 18"x8" D. B. G., q. c. g. chuck.  
 Lathe, 18"x9" Hendy, q. c. g., t. a. col.

### 58 Water St., Pittsburgh, Pa.

Lathe, 19"x10' LeBlond, q. c. g., t. a.  
 Lathe, 20"x12' Monarch, q. c. g.; t. a.  
 Lathe, 22"x10' 10" Greaves-K., q. c. g.  
 Lathe, 24"x13' Lehman, g. h. q. c. g., t. a.  
 Lathe, 26"x15' G-K. for motor.  
 Lathe, 30"x15' Lehman, gd. hd.  
 Lathe, 32"x16' Pgh., q. c. g., chuck.  
 Lathe, 48"x26' geared head, m. d.  
 Miller, No. 28 Ohio pl. auto. feeds.  
 Millers, pl. No. 3 B. & S., LeBlond.  
 Miller, universal No. 4 B. & S.  
 Miller, vert., Becker, Nos. 3 & 5-B.  
 Miller, auto. No. 2-M P. & J., s. p. d.  
 Motors, d. c. 115 volt, 1/2, 1, 1 1/2, 3 h.p.  
 Motors, single and three phase.  
 Motor, 25 h. p. slip r. g., 3/60/220/1160.  
 Pipe benders, 2" Chgo & Wallace.  
 Pipe mche., 10" E.C. & B., 6" Oster.  
 Planer, 30"x10' W. & P., 2-heads.  
 Press, 76-D Pexto, d. c., 10,000 lbs.  
 Press, No. 14 Toledo horn.  
 Press, s. a., s. c., b. g., 3 1/2" st., 7000 lbs.  
 Press, s. a., d. c., b. g., 3" st., 11000 lbs.  
 Presses, No. 3 Bliss, punch type.  
 Presses, o. b. i., No. 1 Toledo  
 Press, No. 19, Bliss o. b. i.  
 Press, o. b. i. No. 3 Niagara, 1 1/2" str.  
 Presses, foot, No. 87 Bliss, pendulum.  
 Press, No. 6 Perkins, s. s., 4000 lbs.  
 Presses, No. 87 Niagara, screw.  
 Punches, s. e. 36", 48", 60", 72" thts.  
 Punch, s. e., Badger, 7" thrt. 3"x3".  
 Punch, No. 13 Niagara hand power.  
 Punch, Rapid, 20" tht., 1"x1 1/2", m. d.  
 Punch, comb. 91/13 Smith, with mtr.  
 Punch & shear, d. e. 16" thts; 1 1/2"x1"  
 with angle & bar shear blades, m. d.  
 Punch & stake riveter, No. 123-C.  
 Toledo boiler makers.  
 Riveters, 1-A A, 3-A, 5 1/2" B, li. speed.  
 Rolls, 30"x1 1/2", 3 1/2"x3".  
 Rolls, hand, 31"x2" P. S. & W.  
 Screw machine, No. 0 G B. & S.  
 Shaper, 7" Rhodes, vert. ram, m. d.  
 Shaper, 16" Cin., b. g., crank.  
 Shaper, 20" G. & E., b. g., vise.  
 Shaper, 24" G. & E., gear box, s. p. d.  
 Shaper, 25" S. & M., b. g., crk., A-I.  
 Shear, 42"x1 1/2" Niagara, 18" gap.  
 Shear, 42"x10 ga. Niagara, 16" gap.  
 Shears, 1/2" & 3/4" Lennox, throatless.  
 Shear, foot, 30"x20 gauge.  
 Shears, Alligator, 14", 2", 2 1/2" & 3".  
 Shear, alligator, No. 2 Badger, 2".  
 Shear, rotary, 12" thrt., cap. 10 ga.  
 Shear, rotary, 16 ga., Yoder, 24" thr.  
 Shear, squaring, 8"x14 ga. power.  
 Shear, squaring, 60"x14 ga. Canton.  
 Shear, 10"x16 ga. Ohl power.  
 Slotter, 15" Dill, for motor drive.  
 Tappers, No. 2 Garvin, vertical.  
 Tube cutter, Fox 2 1/2" cap.  
 Turret lathe, 28" Gisholt, 9 1/2" h. s.  
 Turret lathe, 26"x7 1/2" h. s., Libby.  
 Wheel press, 60-ton W. S., 34"x8 1/2".

## USED AND REBUILT MACHINERY

### FOR SALE BY

**Joseph Hyman & Sons** - 2600 E. Tioga St., Philadelphia, Pa.

Stamping Press Specialists. 1200 Presses In Stock.

No. 6 Toledo, open back inclinable, flywheel, weight 7,000 lbs.  
 No. 78 Toledo, gap frame, single crank, geared, weight 18,000 lbs.  
 No. 204-D Toledo, gap frame double crank, geared, weight 17,500 lbs.  
 No. 4-K Bliss, knuckle joint embossing, 75 tons pressure, weight 5600 lbs.  
 No. 14-B Bliss, d. a. toggle, double geared, friction clutch, weight 10,200 lbs.  
 No. 138 Bliss, double crank, fly. 79" bet. uprights, weight 15,000 lbs.  
 No. 5-B Bliss, double crank, geared, tie rod, 48" bet. uprights, wgt. 20,000 lbs.  
 No. 64 Bliss, double crank, geared, 54" between uprights, weight 28,000 lbs.  
 Shear, No. 4120 Stoll, 10'x3/16" capacity, overdriven, geared, wgt. 18,500 lbs.

### FOR SALE BY

**Miles Machinery Co.,**

**Saginaw, W. S., Mich.**

#### GEAR CUTTERS

18" & 24" G. & E. hobbors.  
 Nos. 3 & 12 Barber Colman.  
 14" No. 5A Lees Bradner.  
 16" Cincinnati.

38" & 48" Brown & Sharpe.  
 60" & 64" Gould & Eberhardt.  
 No. 6 Fellows.  
 No. 2 Bilton automatic.

#### GRINDERS

6"x18" Landis.  
 6"x32" Norton.  
 10"x34" Landis.  
 10"x36" Norton.

12"x18" Cincinnati.  
 12"x36" Cincinnati.  
 12"x72" Landis.  
 14"x72" Norton.

#### LATHES

12"x6" Hende.  
 14"x6" LeBlond.  
 15"x10" Carroll-Jameson.  
 16"x8" Lodge & Shipley.

19"x10" Sidney.  
 20"x8" Lodge & Shipley.  
 26"x14" Putnam.  
 36"x18" Boye & Emmes.

#### SAWS

4"x4" & 6"x6" Marvel.  
 6"x6" Peerless.  
 9"x9" Peerless.

13"x16" Peerless.  
 6", No. 1 Klemm band.  
 8"x7" Atkins.

### FOR SALE BY

**Wm. C. Johnson & Sons Machinery Co.,**

**1211-1223 Hadley Street,**

**St. Louis, Mo.**

Bar shear, 5"x4".  
 Boring mill, 36" Gisholt.  
 Drill, 14" Mason high speed.  
 Drill, 20" Champion.  
 Drill, 22" Barnes, back geared.  
 Drill, 24" Prentice, sliding head.  
 Drill, 25" Barnes back geared.  
 Drill, 28" Barnes sliding head.  
 Drill, 1-spindle Avey.  
 Drill, 2-spindle Leland-Gifford.  
 Drill, 3-spindle Avey.  
 Grinder, Wells Bros. universal.  
 Grinder, 12"x60" Landis universal.  
 Hammer, 60 lb. Bradley helve.  
 Hammer, 600 lb. steam.  
 Lathe, 18"x10" Bradford.  
 Lathe, 20"x10" Bradford.  
 Lathe, 24"x12" Lodge & Shipley.  
 Lathe, 24"x12" Schumacher & Boye.  
 Lathe, 30"x15" Lodge & S., q. c. g.  
 Lathe, 36"x15" American, q. c. g.  
 Miller, No. 1 U. S. hand.  
 Miller, No. 2 LeBlond universal.

Miller, No. 2 Ohio single pulley dr.  
 Miller, No. 3 Kempsmith universal.  
 Miller, No. 5-B Brown & Sharpe.  
 Pipe machine, 4" Oster.  
 Pipe machine, 8" Williams.  
 Press, No. 57 Swaine straight back.  
 Press No. 14 Bliss toggle.  
 Press, No. 3 Toledo.  
 Press, Stiles & Parker drawing.  
 Press, No. 37 Niagara str. back.  
 Press, No. 24 Toledo cam drawing.  
 Press, No. 723 Toledo cam drawing.  
 Punch, No. 14 W. W., 12" throat.  
 Punch, double end, two 20" throats, capacity 1" in 1".  
 Planer, 42"x42"x26" Wheeler, 2 hds.  
 Screw machine, No. 3A Warner & S.  
 Shaper, 16" Smith & Mills.  
 Shaper, 32" Cincinnati.  
 Shaper, 24" American-Klopp.  
 Shear, 48" Excelsior, No. 16 gauge.  
 Squaring shear, 5' power.  
 Tapper, auto., Rickert & Schafer.



# USED AND REBUILT MACHINERY

## FOR SALE BY

West Penn Machinery Company

1206 House Building,

Pittsburgh, Pa.

Automatic, No. 0 Brown & S. b. d.  
Auto. "G" Gridley,  $\frac{1}{2}$ " &  $\frac{1}{4}$ ", m. d.  
Air compressors, 30 to 2500 cu. ft.  
Bender, pipe, No. 4-C Wallace, m. d.  
Blower, Spencer turbine, 1800 c. f.  
Bolt cutter, 1" Landis, 3 hds., m. d.  
Bolt cutter,  $\frac{1}{2}$ " Landis, dbl. head.  
Bolt cutter,  $\frac{3}{4}$ " Acme, sgl. hd. m. d.  
Bor. mill, 48" Bullard Maxi. 2 hds.  
Boring mill, 72" Pond, 2 hds., b. d.  
Boring mill, 96" Pond, 2 hds. m. d.  
Boring mill, 16'-24" Niles, 2 hds. b. d.  
Boring mill, floor type, 4" Bement.  
Brake, 5' press type, 10 gauge.  
Brake, 6' D. & K. 10 ga. box & pan.  
Brake, 8' D. & K. 10 ga. box & pan.  
Brake, 10' Dreis & K.  $\frac{1}{2}$ ", m. d.  
Buildozers, Nos. 2, 4, 6, 28, 29 & 30.  
Cranes, Electric Traveling.  
Die threader, Smalley General, dies.  
Dieing mches., 25 & 50 ton H. & W.  
Die sinker, No. E-3 Keller, m. d.  
Drill, 21" Rockford, tap. att. m. d.  
Drill, radial, 24" Fosdick, t. a., b. d.  
Drill, radial, 34" Cin.-Bickford, s. p. d.  
Drill, radial, 4' Prentice, t. a., b. d.  
Drill, radial, 6' Dreses, s. p. d.  
Flanger, McCabe,  $\frac{1}{2}$ " capacity, dies.  
Gear cutters, 11", 24" & 36" Gleason.  
Gear cutter, spar, 36"x10" Newark.  
Gear hobber, No. 4 Sch. & Sch. 118".  
Gear planer, 20-ft. Gleason, m. d.  
Grinder, centerless, No. 2 Cincinnati.  
Grinder, centerless, No. 4-C Detroit.  
Grinder, internal, No. 70 Heald.  
Grinder, rad., 14" M. & D., m. d.  
Grinder, surface, No. 16 Blanchard.  
Grinder, surface, 14" Arter.  
Grinder, surface, No. 2 Reid, b. d.  
Grinder, tool & cut., No. 2 Walker.  
Hammer, Blacker, power, 35-lbs.  
Hammer, 80-lb. Bradley, cush. helve.  
Hammer, 200-lb. Bradley, cush. helve.  
Hammer, 200-lb. Bradley, compact.  
Hammers, Nos. 3-B, 4-B, 4-N Nazel.  
Hammers, steam, 600 lb. to 6000 lbs.  
Header, No. 2 Wat. Far. o. d., tr. st.  
Jacks, 35-ton Barrett, ball bearing.  
Keysater, No. 0 & 3 Baker.  
Lathe, 16"x6" LeBlond, q. c. g., d. b. g.  
Lathe, 20"x8" Hendey, tie bar, t. a.  
Lathe, 24"x16" Bridgeford, g. hd. m. d.  
Lathe, 48"x26" Bridgeford, g. hd. m. d.  
Lathe, turret, No. 6 Warner & S.  
Lathe, turret, 18" Libby, m. d.  
Lathe, turret, 24" Steinle, 64" hole.  
Lathe, tur., 26" Gisholt, 9" hole, m. d.  
Lysholm tables, 72"x30".  
Miller, plain, No. 2-A Milwaukee.  
Miller, thread, No. 8 Lees Bradner.  
Miller, universal, No. 3 Brown & S.  
Miller, vertical, No. 2 Cincinnati.

Nut tapper, 6-spindle Acme, 2".  
Pipe machine, 2" Landis.  
Pipe mchs., 8" Oster, 8" Williams.  
Planer, 30"x30"x10' Woodward & P.  
Planer, 48"x48"x18' Cintil., belt drive.  
Planer, o. s., 36"x36"x16' D. & H.  
Planer, o. s., 48"x48"x16' D. & H. m. d.  
Planer, rotary, 48" Niles, m. d.  
Presses, arbor, No. 17 Greenerd.  
Press, o. b. i. Ferracute Cl, 3" stroke.  
Press, o. b. i. CG-6 Ferracute, 12000 lbs.  
Press, hydraulic, 1,000 ton United.  
Press, hyd. 100-ton Watson-Stillman.  
Press, s. a., 13"x19 $\frac{1}{2}$ ", 2" stroke.  
Press, No. 784 Bliss, t. r. 10" str.  
Press, No. 92 B Toledo, d. c. 24" str.  
Press, No. 96-A Toledo, d. c. 5" str.  
Press, screw, No. 87 Niagara.  
Press, wheel, 150-ton Schaffer.  
Punch, beam, No. 5 Hilles & Jones.  
Punch, hor., Cleveland, 1" thru 1".  
Punch, hand, Shatz, bar and angle.  
Punch & sh. No. 6 L. & A.  $\frac{1}{2}$ " thru  $\frac{3}{4}$ ".  
Punch & s., Rock. R.  $\frac{1}{2}$ "- $\frac{1}{4}$ " 30" thr.  
Punch & s., Cleveland "C" 48" thr.  
Punch, multiple, No. 5 H. & J. 10".  
Riveters, air, hammer, spinning.  
Rolls, bending 7"x $\frac{1}{2}$ " Cleveland.  
Rolls, bending, 12"x $\frac{1}{2}$ " H. & J. d. e.  
Roller, thread, Nos. 40 & 50 W. - F.  
Sand blast, Pangborn, 90", ER-1.  
Saw, band, metal No. 2 Klem, m. d.  
Saw, cold, 48" Newton, m. d.  
Saw, friction, Nos. 2 & 3 Ryerson.  
Saw, hack, No. 5 Marvel, b. d.  
Screw mch., No. 2 B. & S. wire feed.  
Shapers, 16", 20", 24" & 36" G. & E.  
Shear, angle, 6"x6"x1" H. & J.  
Shears, alligator, 1 $\frac{1}{2}$ ", 3", 3" & 4".  
Shear, bevel, Lennox  $\frac{1}{2}$ ".  
Shear, circle, No. 208-A Niagara.  
Shear, No. 1 Gray, 3/16", 34" gap.  
Shear, gang splitter, No. 235-A Bliss.  
Shear, Cleveland "W" 23" capacity.  
Shear, guil. No. 5 H. & J. 4" sq., m. d.  
Shear, rotary,  $\frac{1}{2}$ " Ryerson.  
Shear, 36"x16 ga. Pexto, foot.  
Shear, squaring 8"x14 ga. Ohl.  
Shear, sq. 10"x10 ga. Kutscheid, m. d.  
Shear, 34" x  $\frac{1}{2}$ " Garrison, 24" gap.  
Shear, 12" x  $\frac{1}{2}$ " Wheeling, 31" gap.  
Slotter, 18" Dill, motor drive.  
Straightener, 60" Nat. 14 ga. 17 rolls.  
Straight'r, 48" United, 16 ga. 13 rolls.  
Straightner, 18" round Abramson.  
Straightener, 4" round Abramson.  
Swaging mche., No. 5-A Standard.  
Testing mche., Brinnell hardness.  
Testing mches., 50,000 & 100,000-lb.  
Tumbling barrel, 18"x36", b. d.  
Upsetters, 1" to 6".  
Welders, spot and butt.

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### FOR SALE BY

**Interstate Machinery Co., • • 130-2 So. Clinton St., Chicago, Ill.**

Bending rolls, 14' 4", 5' 4", 6' 5/16".  
Brakes, 9' 14'; 10' 16"; 12' 18" Chi. Steel.  
Lathe, 11"x3' Sheldon q. c. g., m. d.  
Grinder, 4 h. p. Mall flexible shaft.  
Miller, No. 0 Kempsmith univ., d.h.  
Press, 60" Bliss overhang, dbl. crk.

Press brake, 10' 3/16" Chi. steel.  
Roller die machine, 12 sets rolls.  
Shears, pwr. 10' 3/16"-42" 16 ga. m. d.  
Shears, Marshalltown thrt! No. 10M  
Welders, spot, A. E. F. 7 1/2 k. w.; 12  
k. w., m. d.; 25 k. w. Fed., 32" thr.

### FOR SALE BY

**Brownell Machinery Co., • 150 Pine St., Providence, R. I.**

Boring mill, No. 32 Lucas horizontal, motor drive.  
Boring mill, Bullard 36" New Era vertical.  
Drill, 3 ft. Cincinnati-Bickford plain radial.  
Gear cutter, No. 13 Brown & Sharpe.  
Lathe, 14"x6' Hendey, collet attachment.  
Miller, No. 3 Cincinnati vertical, m. d.  
Planer, 24"x24"x6' Whitcomb.

### FOR SALE BY

**Foster Machinery Company, 2613 E. 73rd St., Cleveland, Ohio**

Blue print machine, "Wickes".  
Drill, No. 2 Henschel multi-spindle.  
Draw bench, 12' Waterbury-Farrell.  
Hoists, elect., 3, 5 & 10 ton Euclid.  
Lathe, 19"x13' LeBlond heavy duty.  
Press, No. 15 Stoll, geared, 3" stroke  
Riveter, 3-A High Speed, 3 A.H.D.

Rotary planer, 50" Cleveland.  
Saw, 9" high speed metal band.  
Shaper, 24" Gould & Eberhardt.  
Shear, 12"x14 ga. Loy & Nawrath.  
Turret lathe, No. 3-A Warner &  
Swasey univ., chucking equip.  
Welder, National butt, cap. 1".

### FOR SALE BY

**The Elyria Belting & Machinery Co.,**

**Corner Williams and Buckeye Streets, • Elyria, Ohio**

Air comps., General Electric Centrifugal, 1.5 lb. pressure with 10 h. p. motor.  
Blower, 11g. Electric 45", with 220 volt motor.  
Bolt cutter and threader, 1 1/2" Acme.  
Pipe bending machines, 4" & 6" Long and Allstatter.  
Screw machines, Nos. 1 and 2 Foster.  
Shapers, 24" and 34" Gould & Eberhardt crank.

Write for our Catalog of 1000 Machine Tools.

### FOR SALE BY

**M. A. Wertman Machinery Co., 427 Penton Bldg., Cleveland, Ohio**

Boring mill, King 40", 1 swivel and 1 turret head, swings 42", A1.  
Brake, Ohi 8'x10 ga., press type, near new condition.  
Cylinder borer, Moline 5-D, six spindles, very best condition.  
Drill, Allen No. 2, 4-spindle automatic feed, late machine, fine condition.  
Grinder, Landis 6"x18", self contained, (2).  
Grinder, No. 1 Brown & Sharpe universal, full equipment.  
Pinion cutter, Sloan & Chace No. 1 Automatic, magazine fd., excellent cond.  
Sprue cutter, Coleman No. 5, 12" throat, capacity 1"x1 1/4", near new.

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## USED AND REBUILT MACHINERY

### FOR SALE BY

#### The Jones Machine Tool Co.,

Boring mill, No. 21 Lucas.  
Boring mill, No. 32 G & L. horiz.  
Gear cutter, B. & S. No. 13.  
Gear hobber, No. 1 Farwell.  
Gear hobber, No. 12 Barber-Col.  
Grinder, surface No. 1 Diamond.  
Grinder, surface No. 2 W. & M.  
Grinder, 16x72" Norton crankshaft.  
Grinder, 8"x36" Brown & Sharpe.  
Lathe, 20"x10" L. & S. q. c.

#### Front & Pike Sts., Cincinnati, Ohio

Lathe, 30"x20" American g. h., m. d.  
Lathe, 42"x16" New Haven, cone drive, geared face plate.  
Miller, No. 2 Cincinnati Hi-Power.  
Miller, 2-M. Cincinnati, sgl. pulley.  
Miller, 3 Cincinnati hi-power, s. p.  
Radial, 3' American, single pulley.  
Radial, 5' American, geared head.  
Shaper, 24" Queen City b. g.

Send for Bargain List just issued.

### FOR SALE BY

#### McDonald Machinery Co.,

#### 1535 N. Broadway, St. Louis, Mo.

Bolt mchs., Landis & Acme 14".  
Boring mill, Lucas & Bul. hor. & vert.  
Brake, D. & K. 6' 10 gauge, power.  
Drills, Cin-Bickford 3' & 3 1/2' radials.  
Gear hobber, G. & E. 24".  
Grinders, B. & S. No. 2 surf. & univ.  
Keyseater, Mitts & Merrill No. 2.  
Lathes, Hendey 14"x6"; Lehman 18"x9", Amer. 22"x10" q. c. g. grd. hd.; 50 others in all sizes & styles.  
Milling machines, Van Norman No. 2 duplex; B. & S. No. 1 1/2 Cinc. No. 1 1/2, Hendey No. 1-B, Kemp. No. 3; Ohio No. 29 all universal; Cleveland No. 2 s. p. d., B. & S. No. 3, Kemp. No. 1, LeBlond No. 3-H.; B. & S. No. 3-B, s. p. d., all plain.

Milling machines, Becker No. 3, B. & S. No. 5, Knight No. 1 1/2, all vertical.  
Pipe mchs., Curtis, B. & K. 12" m. d.  
Punch presses-Niagara No. 7-A, m. d. grd.; Bliss, No. 20; Swaine Nos. 33 & 35; Federal No. 1, 2, 3 & 4, all o. b. i.  
Screw machines, Woods No. 2 tilting turret, Milbolland No. 4 and Foster No. 7. b. g. hand.  
Shapers, Cincinnati 32" heavy duty m. d., G. & E., S. & M., Cin., Ohio 16" b. g., Cin. 20", G & E., Steptoe, Cin., S. & M., 24" b. g.; Ohio, S. & M. 26" b. g.  
Square shears, Niag. 62" 18 ga., pwr.  
Turret lathes, W. & S. No. 2A univ.

### FOR SALE BY

#### Norton-Broadway Mch. Co., Sixth & Baymiller Sts., Cincinnati, O.

##### BORING MILLS.

3 1/2" Lucas horizontal, A 1 shape.

##### DRILLS AND RADIALS

6' American, single pulley.  
4' Morris & American.

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60"x70"x16" New Haven, raised, \$875.  
30"x14" Prentice.  
24"x12" American.

##### PLANERS AND SHAPERS.

32"x12" Detrick & Harvey openside.  
48"x10" Belmer, 4 heads, \$775.  
56"x42"x8" Gray widened, \$500.

##### MISCELLANEOUS.

Pipe machine, 12" Curtis.  
Presses, No. 166 Consolidated, No. 164 Toledo.  
Rolls, 6"x4".  
Rolls, 12"x1" Niles.  
Slotter, 20" Dill, motor drive.

24" and 36" Bullard New Era.  
No. 5 Fox multiple spindle, 32x45".  
24" Barnes camel back.  
21"x12" Sidney.  
30"x20" American, geared head.  
24" Gould & Eberhardt, shaper, \$400.  
24" Potter & Johnston, \$500.  
Shears, 8x3/16" Ohl.  
Shear, 72" Hilles & Jones, cap. gap, with motor.  
Shears, 60"x4" Williams-White.  
Shears, 10' Streine. 14 gauge.  
Turret lathe, 6" Gisholt.

More than 300 other Lathes, Planers, Milling Machines, Shapers, Drills, Brakes, Boring Mills and other Machine Tools in stock.

Tell us what you need or what you have for sale.

## USED AND REBUILT MACHINERY

### FOR SALE BY

**The Geo. H. Bowman Company, 308 Euclid Ave., Cleveland, Ohio**

Drill presses, Mueller radial.  
Press, No. 2 Consolidated.  
Press, No. 3 Consolidated.  
Press, No. 24-A Cleveland boring.  
Press, No. 64 Consolidated.

Press, No. 92 Toledo.  
Press No. 40 Michigan.  
Press, No. 54-A. Bliss.  
Press, No. 406 toggle draw Bliss.  
Press, No. 292 Toledo.

---

### FOR SALE BY

**Mid-West Machine Tool & Supply Co.,**

**Davenport, Iowa**

Automatics, Nos. 0 & 00 B. & S.  
Gear generator, 3" Waltham bevel.  
Grinder, 10"x36" Norton.  
Grinder, No. 10 B. & S. ext.  
Grinder, No. 22 Heald rotary surf.

Hobbers, Nos. 3, 12-B & C.  
Lathe, No. 9 LeBlond multi-cut.  
Millers, Nos. 1 & 2 Brown & Sharpe.  
Radials, 3' Cincinnati Bickford.  
Turret lathe, No. 6 Warner & S.

Partial list; send us your inquiries.

---

### FOR SALE BY

**Wigglesworth Machinery Company**

**199 Bent Street,**

**Cambridge, Mass.**

Automatics, No. 00 B. & S...\$250.00  
Boring mill, No. 0 G. & L.  
Lathe, 18"-20"x20' L. & S.  
Lathe, 19"-30"x8' LeBlond, gap.  
Miller, 6"x18" P. & W. thread.

Miller, No. 2 LeB. hvy. univ., m. d.  
Miller, 48"x24"x10' Ingersoll.  
Planer, 30"x30"x8' Clev. openside.  
Press, No. 95F Toledo, 103 bet.hous.  
Press, No. 3A Bliss.

---

### FOR SALE BY

**The E. L. Essley Machinery Co.**

**Telephone Randolph 9191**

**551 W. Washington Blvd., Chicago**

Brake, 8', No. 18 gauge, Robinson.  
Press brake, 10' No. 10 gauge Ohl.  
Presses, No. 165-B Consolidated grd.  
Presses, Nos. 19 and 21½ Bliss.  
Presses, No. 5 Toledo, o. b. i.

Press, No. 7-A Niagara.  
Press, No. 4 Loushough-Jordon.  
Shears 10' 3/16" cap. Niagara m. d.  
Shears 11' No. 14 gauge Niagara.  
Shear, 52" No. 16 gauge Niagara ft.

---

### MISCELLANEOUS

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### SERVICE FOR DEALERS

**Bradley Machinery Company, 11553 Livernois Ave., Detroit, Mich.**

We specialize in locating for Dealers high grade slightly used machinery at bargain prices on a commission basis. Over 5,000 machines for sale.

Send us your inquiries.

# Modern Tools At Low Prices

## MILLING MACHINES

No. 5 Cincinnati plain, rect. overarm.  
No. 2, 3, 4 Cincinnati plain, sgl. pulley.  
No. 3B Milwaukee, sgl. pul., dbl. over.  
No. 3B Milwaukee, arranged for m. d.  
No. 3 Cincinnati plain, cone pulley.  
No. 3 Kempsmith plain, cone pulley.  
No. 3 Brown & Sharpe plain, cone p.  
No. 2BS Milw. pl., s. p. d., dbl. over.  
No. 2 B Milwaukee pl., s. p. dbl. over.  
No. 2HD LeBlond plain, cone pulley.  
No. 2 Cincinnati plain, cone pulley.  
No. 1½BS Milw. pl. s. p. d. dbl. over.  
No. 1 Cleveland Univ., single pulley.  
No. 1B LeBlond Univ., cone pulley.  
No. 2 Cincinnati Univ., cone pulley.  
No. 3 Cincinnati Univ., single pulley.  
No. 3 Kempsmith Univ., cone pulley.  
No. 3 Ohio Universal, cone pulley.

No. 3A Owen Universal, cone pulley.  
Becker Continuous Vertical Milling  
Machine, c. p. drive.  
No. 1½B Milwaukee Vert., arr. m. d.  
No. 2½B Milwaukee Vert., sgl. pul.  
No. 3 Becker Vertical, cone pulley.  
No. 2, 3, 4 Cincinnati Vert., sgl. pul.  
No. 6 Becker Vertical, arr. m. d.  
40" Ohio Tilted Rotary, arr. m. d.  
10"-12" Pratt & W. Auto., sgl. pul.  
4" Pratt & Whitney Spline, arr. m. d.  
6x14" Pratt & W. Thread Miller, s. p.  
No. 21 Brown & Sharpe Auto., sgl. p.  
No. 33 Kempsmith Production, sgl. p.  
18", 24", 48" Cin'ti Auto. Dupl., s. p.  
18", 24", 48" Cincinnati Auto. Plain.  
48"x42"x8" Ingersoll planer type slab.  
No. 3, 3C Lees-Bradner Thread Mill.

## PLANERS AND SHAPERS

24" Cincinnati crank planer, 4 step c.  
28"x28"x8" Gray planer, 1 head.  
30"x30"x10" American, 1 head.  
33"x33"x8" Ohio, 2 heads.  
36"x36"x10" Cin'ti, tu-speed, arr. m. d.  
36"x36"x10" Gray, 2 heads.  
48"x48"x20" Cin. tu-sp., arr. m. d., 4hds.  
16" Gould & E. b. g. crank, cone pul.  
16" Smith & Mills b. g. cr., cone pul.  
20" Cincinnati b. g. cr., cone pulley.  
20" Columbia b. g. cr. cone pulley.  
20" Kelley b. g. crank, cone pulley.

20" Milwaukee b. g. crank, cone pul.  
20" Smith & Mills b. g. crank, c. pul.  
20" Steptoe b. g. crank, cone pulley.  
24" G. & E. b. g. crank, single pulley.  
24" G. & E. b. g. crank, cone pulley.  
24" P. & J. Univ. crank, cone pulley.  
24" Stockb ge m. d. b. g. crk., motor.  
25" Smith & M. b. g. crank, cone pul.  
25" Springfield b. g. crank, single pul.  
26" Kelley b. g. crank, cone pulley.  
28" G. & E. b. g. crank, cone pulley.

## PRESSES

No. 1 Consolidated o. b. i.  
No. 2 Adriance, o. b. i.  
D2 Ferracute single action drawing.  
DD2 Ferracute double action drawing.  
DAG 3 Ferracute dbl. act. grd. draw.  
No. 3 Consolidated o. b. i.  
No. 3 Michigan o. b. i.  
No. 3 Toledo o. b. i.  
No. 4 Robinson o. b. i. geared.  
No. 4 Toledo o. b. i.  
No. 5 Cleveland o. b. i.  
PG 5 Ferracute Straight Back.  
No. 6 Waterbury-Farrel dbl. crk. o. b.  
No. 12 Toledo homing.

No. 23 Bliss Consolidated grd. horn.  
No. 32P Toledo upright.  
No. 33 Toledo upright.  
S 51 Ferracute double crank.  
No. 83C Michigan double crnk, grd.  
No. 90E Toledo double crank.  
No. 91D Toledo double crank, geared.  
No. 94 Consolidated.  
No. 206B Toledo gap bed double c. g.  
150 ton Elmes Hydr. Tire Forcing.  
No. 0 Springfield Straightening.  
No. 2 Badger Alligator Shear.  
No. 16A Badger sgl. end punch & s.  
Cleveland s. e. punch & shear, ¾" cap.

## MISCELLANEOUS

Nos. 4 & 5 Greenard arbor presses.  
34" Bullard New Era boring mill.  
15 & 30 ton Lucas pwr. forcing presses.  
1" Landis single spindle bolt cutter.  
1½" Landis 2 spindle bolt cutter.  
1" Acme 2 spindle bolt cutter.  
No. 2 J. N. LaPointe double broach.

No. 3B J. N. LaPointe broach.  
No. 3 J. N. LaPointe double broach.  
No. 4 J. N. LaPointe single broach.  
50 lb. Bradley strap hammer.  
75 lb. Scranton upright hammer.  
No. 0 Catlin keyseater.  
No. 5 Mitts & Merrill keyseater.

See July Blue Book for Boring Mills, Drills, Gear Cutters, Lathes.

Write for our Stock List No. 32, listing 1500 machine tools in stock.

# THE EASTERN MACHINERY CO.

3265 Spring Grove Ave.,

CINCINNATI, OHIO

# High Grade Machine Tools

## Lathes

54"x24" H. S. & G. Grd. Hd. M. D.  
42"x24" American Grd. Hd. late type.  
24"x22" Bradford, Q. C., 3 S. C. D.  
30"x20" Am. Grd. Hd. M. D. late type.  
46"x18" N. B. P., Qk. Ch., H. D.  
46"x16" H. S. & G. Grd. Hd., late type  
20"x14" Hendey Yoke Hd. Tap. Att.  
30"x10" Lodge & Shipley, 3 S. C. D.  
D. B. G. Q. C.  
20"x10" American Grd. Hd. late type.  
20"x8" Am. Grd. Hd., M. D., late t.  
18"x8" Reed-Prentice Grd. Hd. Q. C.  
20-30"x7" Monarch Helical G. H. Gap  
16"x6" Lodge-Shipley Sel. Grd. Hd.  
8" Ames Precision, complete.

## Grinders

Nos. 50, 60, 65 and 70 Heald.  
No. 4-A Landis Crankshaft Grinder.  
6"x18" Landis Plain, Self Contained.  
No. 11 Brown & Sharpe Plain.  
Walker Single Stroke Surface Grinder.  
10"x52" Landis Plain, Self Con.  
No. 14 Gardner Disc Grinder.  
12" Pratt & Whitney Surface.  
No. 2 Bath Universal Grinder.  
No. 2 Brown & Sharpe Surface.  
No. 3 Brown & Sharpe Universal.  
No. 13 B. & S. Universal Tool Room  
Grinder, complete equipment.

## Gear Cutters

No. 4-48" Gould & Eberhardt.  
No. 12 Barber-Colman Hobber, dbl.  
overarm, late type.  
18-H Gould & Eberhardt Hobber.  
6", 11", 18" Gleason Gear Generators.

## Bolt and Pipe Threaders

1/4" Landis Double-Spindle.  
1 1/2" Landis Sgl.-Sp., Grd. Hd. m. d.  
1" Acme Class "A" Single-Spindle.  
2" Landis Sgl.-Sp., lead screw attach.  
2" Landis Double-Spindle.

## Boring Mills

36" Bullard New Era A. C., motor dr.  
60" Niles Boring Mill, 2 heads.  
No. 32 Giddings & Lewis Horiz.

## Milling Machines

No. 5 Brown & Sharpe Plain.  
No. 4 Cincinnati H. P. Pl., S. P. D.  
No. 4-B Milwaukee Plain; Dbl. Over-  
arm; motor-in-base; 98% new.  
No. 3 Cincinnati, Plain.  
Nos. 3; 5-B; 6 Becker Vertical.  
No. 2-B Milwaukee Plain, Double  
Overarm, Rapid Traverse.

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**Cincinnati Machinery & Supply Co.,** 28 West Second St., CINCINNATI, OHIO

No. 3 Cincinnati Vert. H. P., S. P. D.  
Nos. 2 and 3 Cincinnati High Power  
Plain, S. P. D. flange nose

No. 2 Cincinnati Universal H. P.  
flange nose; S. P. D.

5" Pratt & Whitney Automatic.

18" Cincinnati Plain Mfg. Miller.

18" Cincinnati Automatic, M. D.

24" Cincinnati Automatic, M. D.

No. 33 Kempsmith Automatic.

No. 3 Rockford Rigidmil; 98% new.

No. 30 Sunstrand Rigidmil; Hydraulic

Feeds; brand new.

No. 7-H Becker Lincoln type.

No. 1 Knight Miller and Driller.

No. 3 & 3-E Lees-B. Thread Millers.

## Planers

24"x24"x8" Gray Planer.

27"x27"x8" Woodward & Powell.

36"x36"x10" Gray, 2 heads.

26"x26"x12" Whitcomb-B., 2 heads.

## Radial and Upright Drills

3' & 4' American Tr. Grd. SPD, MD

3 1/2" American Triple Purpose, M. D.

No. 2 Colburn Mfg. H. D. 2-spindle.

3-sp. Avey High Speed Ball Bearing.

6-spindle Rockford 20" B. G. P. F.

No. 40 Nateco Straight Line Multi.

## Shapers

7" Rhodes Shaper & Slotter.

16" Cincinnati, A. C. Motor Drive.

20" Steptoe, S. P. D.

20" Gould-Eberhardt, High Duty.

24" Potter-Johnson M. D. thru gear box

24" Cinti. h. d. mtr. dr. thru gear box.

## Miscellaneous

2" Acme Sgl. Spl. late type Bolt Cutter.

No. 3-B LaPointe Broaching Mche.

25 ton Henry & Wright Dieing Mche.

50 ton Henry & Wright Dieing Mche.

80 lb. Bradley Cushion Helve Hammer

Nos. 0 and 3 Baker Keyseaters.

Nos. 1 & 2 Davis Keyseaters.

6 spindle 3/8" Acme Nut Tapper.

No. 1 Fisher Oil Groover.

No. 5 Toledo O. B. Incl. Presses.

No. 76 Toledo Open Bk. Gap Frame.

No. 4 Hilles & J. Gate Shear, M. D.

Wickes Punch & Shear, 48" throat,

1 1/4" thru 1 1/4".

High Spd. Rivet., 1AA; 1 1/2B; 2AHD.

No. 2 Garvin Vertical Tapper.

No. 2-A W. & S. Turret Lathes.

No. 4 W. & S. Univ. Turret Lathe.

100 K. W. Federal Butt Welder.

Shuster Wire Mches. 1/8" to 3/8" Caps.

---

## A Few Picked at Random

Universal Horizontal Boring Mill, 3" bar .....	\$ 895.00
No. 214 Barnes Single Spindle Honing Machine .....	450.00
10' Ohl Power Press Brake, 10 ga.	1200.00
No. 43 Robinson Straight Side Double Crank Press, 46" between housings .....	1000.00
3-H Rockwell Hardness Tester	195.00
28"x10' Sidney Engine Lathe, quick change, complete ....	495.00
No. 3 Cincinnati Universal Milling Machine, 3 step cone, pul. dr.	275.00
No. 30 Natco Multiple Spindle Drill, with tapping attachment	770.00

All tools can be seen in operation. Here is your opportunity to purchase tools at prices that cannot be duplicated.

They won't last long at these prices.

**WRITE, WIRE OR PHONE**

**Indianapolis Machinery & Supply Co., Inc.**  
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Phones: Drexel 4163-4-5

All tools offered subject to prior sale.

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# Analysis of Circulation of HITCHCOCK'S MACHINE TOOL BLUE BOOK

## By Dun and Bradstreet Ratings

(Corrected to December 1st, 1931)

To domestic concerns, and superintendents, works managers, production engineers, master-mechanics, etc., in such concerns rated at—

Exceeding \$1,000,000.....	2,181
\$500,000 to \$1,000,000.....	1,603
\$300,000 to \$ 500,000.....	1,529
\$200,000 to \$ 300,000.....	1,367
\$125,000 to \$ 200,000.....	1,784
\$ 75,000 to \$ 125,000.....	1,985
\$ 50,000 to \$ 75,000.....	1,417
\$ 20,000 to \$ 50,000.....	2,992
\$ 10,000 to \$ 20,000.....	1,983
\$ 5,000 to \$ 10,000.....	1,625

**TOTAL to Private Concerns of over \$5,000..** 18,466

Steam and Street Railway Mechanical and Purchasing Officials, Government and Municipal Plants, Technical Schools, Electric Power Plants, Selected Foreign Importers and Users, Etc.,.....	3,411
---	-------

**TOTAL to Buyers of Known Responsibility..** 21,877

\*Concerns quoted in Dun or Bradstreet, but without Capital Rating..... 2,116

Concerns not yet in either Dun or Bradstreet, which includes new industries..... 961

Concerns rated \$3,000 to \$5,000..... 465

Miscellaneous ..... 195

**TOTAL CIRCULATION .....** 25,614

\*This group includes a considerable number of large concerns, and some small ones of high credit, whose capital rating is not given by either of the commercial agencies.



## Machines Carrying New Machine Guarantee—

- 24"x12' Monarch Model "L", c. r., q. c. g. 8 speed helical geared head Timkenized spindle, motor driven lathe complete with motor.
- 3-A Standard Brown & Sharpe Universal Milling Machine complete with all regular equipment, with No. 2 universal vertical attachment, motor in base complete with motor.
- No. 4 Cincinnati Vertical High Power Milling Machine with rapid traverse, with selective dial feed, belt driven, can be motor driven.
- 3-A Warner & Swasey Univ. Hollow Hexagon Turret Lathe, steel covered ways, with comp. chucking equipment, motor driven, comp. with motor.
- 36"x36"x12' Gray Open Side Planer with two rail heads, side head, variable speed motor dr. comp. with variable speed motor & motor generator set.
- 42"x54"x16' Gray Double Housing Planer, two rail heads, two side heads, widened table, arranged for variable speed motor drive, complete with variable speed motor, control and motor generator set.
- 52" King Vertical Boring Mill with two swivel heads, chuck jaws, motor driven, complete with motor.
- No. 31 Lucas Horizontal Precision Boring Mill with extended column and extended bed, three boring bars, 24" Swiss Geneva Society vertical milling attachment, motor driven complete with motor.

*This is only a partial list of a wonderful stock of guaranteed used machine tool equipment. Come to Cleveland and Look over our stock.*

## The Strong, Carlisle & Hammond Co.

1392 West Third St.  
CLEVELAND, OHIO

2832 East Grand Blvd.  
DETROIT, MICH.

## Presses Are Our Specialty

**We have a large stock of Machine Tools.**

- 4—No. 102 Consolidated double crank inclinable presses, each with 2 H. P., A. C. motor, two never used.
- 1—93A Toledo double crank tie rod frame geared press, 6" stroke.
- 1—8A Bliss dbl. crank tie rod frame, dbl. grd., 30 H.P. A.C. motor.
- 1—No. 426½ Hamilton double crank geared press, 8" stroke, 10 H. P., A. C. motor.
- 12—No. 5 Loshbough Jordan geared inclinable presses, 4", 5", 5½" str.
- 1—McKinney rolling machine with 15 H. P., A. C. motor.
- 1—No. 3 Ohio cutter and reamer grinder, A.C. motor and equipment.
- 1—No. 2 Walker tool room grinder, with equipment.
- 1—14"x72" Norton plain grinder, with countershaft.
- 1—No. 1½B Milwaukee vertical miller, rotary table.
- 1—No. 6 Becker vertical miller, rotary table.

Also continuous wash machine, baking ovens, graining machine, all complete with motors, etc. for making auto garnish moulding.

**A. D. White Machinery Co.**  
108 N. Jefferson St., Chicago, Ill.

## FOR SALE BY

**Russell Machine Co., 1447 Oliver Bldg., Pittsburgh, Pa.**

72" N.B.P. bor. mill, 2 sw. hds., m.d.  
36" Bullard bor. mill, 2 sw. hds., b. d.  
Rockford 14" Upright Drill Press.  
Foote-Burt 24"; 5' Bausch Radial.  
4' Cin-Bickf. rd. gear box, s. p. d.  
Libby M. D. 7½" H. S. latetype lathe.  
32"x20" grd. hd. Bridgeford, m. d. lathe.  
S&B dbl. spdl. 24-42"x14" bed lathe.  
18"x8" Superior q. c. g., belt drive.  
No. 4½ Standard Miller, t. & l. p., c.s.  
No. 4 Cincinnati Plain Miller, b. d.

Wais & Roos 15" thrt. ¾x½" P. & S.  
No. 5 H&J Beam Punch, cap. 30".  
No. 7 dbl. end L. & A. Punch & Shear.  
No. 3 D. & K. Alligator Shear, 30" kn.  
No. 1½ D. & K. high knife Allig. Shear.  
V. & O. No. 3 & No. 1 o. b. i. Press, 2" st.  
10" Garrison Pwr. Brake, cap. 16 ga.  
Caldwell 300 ton Hydraulic Wheel.  
16" G. & E. & 32" Cin'ti m. d. Shapers.  
H. & J. Double Angle Shear, 6x6x1".  
10" Ohl Pwr. Sq. Shear, cap. 16 ga.

## Automatic Screw Machines

All makes and sizes.

### Bar and Chucking Machines

Also

### Magazine Machines for 2nd Operations

AT ATTRACTIVE PRICES

**AUTOMATIC MACHINE & ENGINEERING CO.**  
**2821 Brooklyn Ave., Detroit, Michigan**

Complete line of upsetting and forging machines; bulldozers; Bradley hammers; drop hammers; bar, alligator and plate shears; presses-inclinable, solid back and straight sided; punches; bolt and pipe threading machines; cold bolt headers, trimmers and thread rollers; nut machines; tappers and miscellaneous bolt and forging machinery. Structural and sheet metal tools; press brake; horizontal bender & straightener; Newton rotary facer; angle shears; roller levellers and straighteners; bending rolls; arc welders; 10" ¾" and 10" ½" plate shears; tensile testing machines.

## Donahue Steel Products Co.

*Specialists in Forging, Bolt, Nut and Rivet Machinery*

**74th and Ashland Ave.,**

**Chicago, Ill.**

### New and Used Wood-Working Machinery

For a large list of new and used wood-working machinery, consult **Wood-Working Machinery**—a monthly publication similar to this, but devoted to the advertising of wood-working and saw-mill machinery and allied equipment.

A copy may be had free of cost on application to the publisher, **Hitchcock Publishing Co., 508 S. Dearborn St., Chicago, Ill.**

# Unusual Machines

- 5—No. 6-DE Potter & Johnston automatic chucking lathes, direct mtr. dr.
- 1—35 Ton Oil Gear press.
- 1—No. 3 LaPointe hydraulic broaching machine.
- 1—2 spdl. Cincinnati 24" heavy duty motor driven drill with tapping att.
- 1—16 spindle Bausch drill press.
- 1—No. 5 Foster motor driven universal screw machine.
- 1—No. 24 Universal Triway horizontal boring mill, motor drive.
- 1—No. 2A Brown & Sharpe universal milling machine, motor in the base.
- 1—4' Western radial drill.
- 1—36x36x8' Cincinnati motor driven planer.
- 2—16" Gould & Eberhardt shapers.
- 1—10x36 Cincinnati plain grinder.
- 1—36x16' Bridgeford all geared motor drive engine lathe.

*We have about 500 machine tools on our floor  
that are offered at attractive prices*

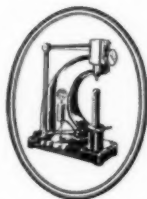
## Riverside Machinery Depot

251 St. Aubin Ave.,

Detroit, Michigan

## ▼ Factory Rebuilt ▼

### ROCKWELL HARDNESS TESTER



We are the sole makers of the famous Rockwell Testers. We have several machines taken in trade for late models, that we have thoroughly rebuilt and recalibrated in our laboratories.

**WILSON MECHANICAL INSTRUMENT CO., INC.**

385 Concord Ave., New York City

## NEW 5 HP 3 phase motors \$61.75

### LATHES

12"x 5' Cleveland, geared head. | 18"x 8' American qk. ch., taper att.  
14"x 6' Carroll-Jamieson, q. c. | 24"x 14' LeBlond.

### TURRET LATHES and SCREW MACHINES

Nos. 52, 53 and 55 National Acme. | 8" capacity Acme.  
21" and 24" Gisholt, (motor drive). | 13/16" capacity Foster (2).

### SHAPERS

16" Smith & Mills, motor drive. | 20" Smith & Mills, back grd. crank.  
16" Ohio back geared, crank. | 25" Smith & Mills, back grd. crank.

### PRESSES

No. 4 Toledo o. b. l. | No. 39 Bliss horning.  
No. 3 Niagara o. b. l., (2). | Emco bench.

### DRILLS and RADIALS

4-spindle Demco bench (new). | 5' Baugh radial.  
4-spindle No. 1-B Avey high speed. | 22", 24", 26" and 32" sliding head.  
Hilbert 24" radial. | No. 66 D Hole Hog 7-spindle.

### MILLING MACHINES

24"x20"x9' Ingersoll horizontal, motor drive, like new.  
No. 25 Bilton (new). | No. 4 Lees-Bradner thread miller.

### GRINDERS

No. 1 W. & M. surface. | 16"x42" Landis universal.  
6"x15" Fitchburg plain. | 10"x20" Landis plain.

### MISCELLANEOUS

Blowers, positive pressure. | Boring mill, No. 3 Colburn.

**OSBORNE & SEXTON**  
**MACHINERY** Dept. H. **COMPANY**  
**COLUMBUS** **OHIO**

## Service—IMCO—Quality

36" Bullard New Era Type Vertical Turret Lathe  
thread cutting attachment.

3½" Bar Universal Horizontal Mill, S. P. D.

6' Cincinnati-Bickford Plain Radial, M. D.

22" Barnes All Geared Self-Oiling Drill, M. D.

16"x72" Landis Crankshaft Grinder, M. D.

16"x8' Bradford Geared Head Tool Room Lathe.

No. 14 Cochrane-Bly Universal Shaper, S. P. D.

30-ton Lucas Power Forcing Press, S. P. D.

*Send for complete stock list.*

**IROQUOIS MACHINERY CO., BUFFALO, N. Y.**

**No. 660 Ohio Street :-: Telephone: Cleveland 3025**

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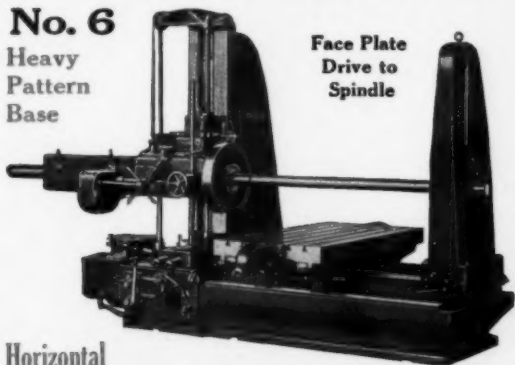
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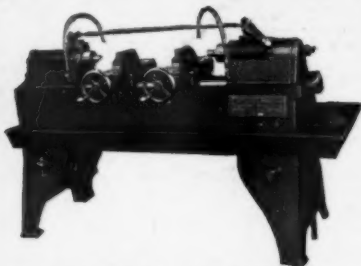
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